

CLAIMS:

1. Press with a high pressure force characteristic, comprising at least one flywheel, and at least one shaft drive acting upon a shaft, wherein the at least one shaft drive and the at least one flywheel are mutually synchronized.

2. Press according to Claim 1, wherein the at least one flywheel is connectable via the shaft with accessory devices of the press.

3. Press according to Claim 1, wherein the at least one flywheel is selectively coupleable to and uncoupleable from the shaft.

4. Press according to Claim 2, wherein the shaft further comprises a brake.

5. Press according to Claim 4, wherein the at least one flywheel is selectively coupleable to and uncoupleable from the shaft.

6. Press according to Claim 1, wherein the at least one shaft is a main shaft.

7. Press according to Claim 1, wherein the at least one flywheel is arranged to be driven by a separate flywheel drive.

8. Press according to Claim 1, wherein displaceable flywheel masses are operatively arranged in the at least one flywheel.

9. Press according to Claim 8, wherein the displaceable flywheel masses are at least one of hydraulically, pneumatically and electrically displaceable.

10. Press according to Claim 1, further comprising a device configured to monitor rotational speed of the at least one flywheel.

11. Press according to Claim 1, further comprising a device configured to monitor rotational acceleration of the at least one flywheel.

12. Press according Claim 1, further comprising a timing device.

13. Press according to Claim 1, further comprising a device configured to analyze required energy.

14. Press according to Claim 1, further comprising a device configured to predict required energy.

15. Press according to Claim 14, further comprising a device configured to analyze required energy.

16. Press according to Claim 15, wherein the analyzing device and the predicting device comprise a self-learning unit.

17. Press according to Claim 1, further comprising a program connectable with the press for simulating a forming process.

18. Press according to Claim 1, further comprising a

device configured to supply at least one of a not-required energy quantity from one flywheel to another flywheel and to feed said not-required energy quantity back into the power supply network.

19. Press according to Claim 1, wherein the at least one flywheel includes a device for compensating an unbalanced mass.

20. Press according to Claim 1, wherein the at least one shaft drive has a device configured to monitor rotational speed.

21. Arrangement of several presses according to Claim 1, wherein the at least one shaft drive of each press and the respective at least one flywheel of each press are mutually synchronized.